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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,401	10/30/2000	Jeffrey Steinhauer	UDM	4834

7590 07/26/2004  
William H Dippert  
REED SMITH LLP  
599 LEXINGTON AVENUE  
29TH FLOOR  
NEW YORK, NY 10022

EXAMINER

BRINICH, STEPHEN M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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8

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Commissioner for Patents

## Office Action Summary

**Application No.**

09/623,401

**Applicant(s)**

STEINHAUER, JEFFREY

**Examiner**

Stephen M Brinich

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 27-31 is/are allowed.  
6) ☒ Claim(s) 1-9 and 11-26 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 31 Aug 2000.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 & 11-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 10 and claim 14, line 5, the phrase "the screen angle of adjacent colors have different screen angles" is unclear. It should apparently read "adjacent colors have different screen angles".

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 11/1, 13/1, 14, 22/14, & 25/14, insofar as they are understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Dalal et al.

Re claims 1, 13/1, 14, & 22/14, Dalal et al. discloses (Figure 1; column 7, line 60 - column 8, line 9) a process for printing an image with a set of colorants including cyan (C),

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magenta (M), yellow (Y), and black (B) and also including other colorants, one of which (blue (B)) has a hue angle between that of cyan and magenta. A set of angled half-tone screens is assigned to these colorants. Adjacent colors (e.g. Y and G) are assigned to different screen angles.

Re claims 11/1 & 25/14, Dalal et al. discloses (column 8, line 1) the use of an orange (O) colorant.

***Allowable Subject Matter***

5. Claims 27-31 are allowed.

6. Claims 2-9, 11/2-7, 12, 13/2-7, 21, 22/15-20, 23-24, & 25-26/15-20, insofar as they are understood, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 2-3 & 15-16, (and dependent claims 4-7, 8-9/2-7, 11-13/2-7, 17-20, & 21-26/15-20) Dalal et al. teaches the assignment of one-third (rather than one-half) of the non-black colors to each of the screen angles.

Sets of colors are assigned three different screen angles in complementary color pairs, thereby assigning half of them to

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each screen in such a way that colors of adjacent screen angles (which are not complementary colors) are assigned to different screen angles. This insures that the two colors assigned to each screen angle are never in use simultaneously. This teaching contraindicates a modification to assign half of the colors to one screen angle, as such a modification would place at least two colors that could be used simultaneously on the same screen angle.

Re claims 8/1, 9/1, 10/1, 21/14, 23/14, 24/14, & 27-31, Dalal et al. discloses blue (which is within the CMYK gamut) as the colorant between cyan and magenta.

Re claim 12/1 & 26/14, Dalal et al. assigns cyan and magenta to different screen angles. A modification to assign them to the same screen angle is contraindicated by Dalal et al.'s arrangement of avoiding the assignment to the same screen angle of colors that could be in simultaneous use.

#### ***Response to Arguments***

8. Applicant's arguments filed 14 May 2004 have been fully considered but they are not persuasive.

Applicant argues (Paper #7: page 8, lines 7-16) that independent claims 1 & 14 were amended to include a limitation (that adjacent colors are assigned to different screen angles)

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indicated as allowable subject matter in the previous Office action.

However, the element described as patentable subject matter in the previous Office action was the assignment of one-half (rather than one-third as in the Dalal et al reference) of the non-black colors to each of the screen angles. The comment concerning the assignment of adjacent screen colors to different angles was made by way of explaining the significance of this difference (i.e. why a modification from assigning one-third of the colors to a screen angle to assigning one-half of the colors to a screen angle would not be a variation obvious to one of ordinary skill in the art).

Dalal et al discloses (Figure 1) the assignment of adjacent colors (e.g. Y and G) to different screen angles.

#### **Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.

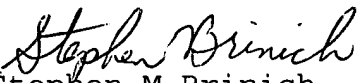
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If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9306.

  
Stephen M Brinich  
Examiner  
Art Unit 2624

smb  
July 19, 2004